



# **USDA APHIS Honey Bee Health Program**

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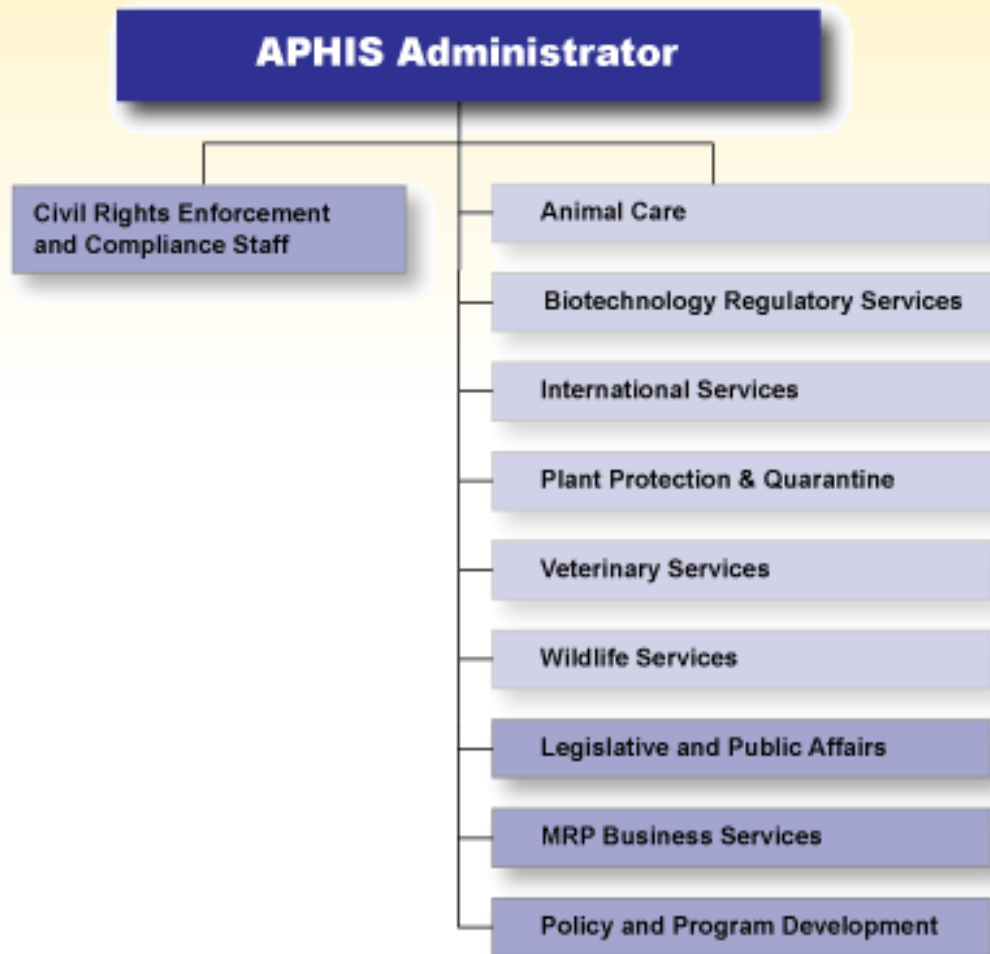


# Animal & Plant Health Inspection Service Mission

**To protect the health and value  
of American agriculture and  
natural resources.**



# Animal & Plant Health Inspection Service





# PPQ's Mission

**Safeguard agriculture and natural resources from the risks associated with the entry, establishment, or spread of animal and plant pests and noxious weeds to ensure an abundant, high-quality, and varied food supply.**



# Plant Protection and Quarantine

**PPQ**

**Emergency and Domestic Programs**

**Plant Health Programs**

**Center for Plant Health Science and Technology**

**Eastern and Western Regions**



# USDA APHIS

- Plant Health Program (PHP)
- Permit
  - Currently allowed from Australia, Canada, and New Zealand without permit
  - Export certificate required
    - Certified that bees are from exporting region
    - Source bees inspected 10 days before export
    - Identify any pests, parasites, diseases detected during the inspection
    - Certified free of Thai sacbrood virus, *Tropilaelaps clareae*, *Euvarroa sinhai*, *Apis ceranae*, *Apis capensis*



# USDA APHIS

- Emergency and Domestic Programs (EDP) initiatives
  - Imadicloprid used for Asian longhorned beetle (ALB) control
  - Pesticide toxicity testing
  - Varroa in Hawaii
  - National Survey



# Imadicloprid

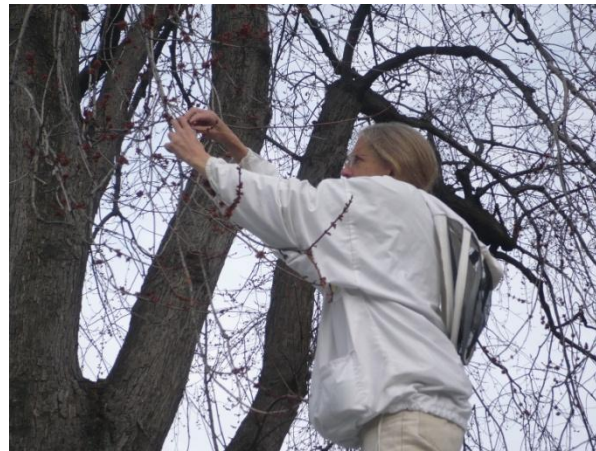
- Trees are treated with Imadicloprid for ALB control after infested trees are removed
- Bee keepers raised concerns of effects of honey bees foraging on treated trees at a public meeting
- Environmental Assessment (EA)
  - Concluded a finding of no significant impact (FONSI)





# Imadicloprid

- Determine expression rates in nectar and pollen of imidicloprid in treated trees and the potential impacts of residues on pollinators.
- Massachusetts and New York





# Toxicity Testing

- Science Panel convened to address honey bee pesticide chronic toxicity laboratory and field testing.
- Begin the process of developing standardized testing protocols for chronic and sub-lethal exposures.
- USDA-APHIS, USDA-ARS and US EPA collaboration



# Hawaii

- Varroa found in Hilo on Hawaii, August 2008
  - FIFRA Section 18 request to use Fipronil declined
  - Crisis exemption: 15 days; 200 bait stations
- Varroa found in Kona, October 2009
- Small hive beetle found on Hawaii, April 2010



# Hawaii

- Training
  - Workshops and one-on-one
- Pesticide Resistance
  - Fluvalinate and Coumaphos
- Pollination
- FIFRA Section 18
  - Formic Acid and possibly Amitraz
- National Survey



# National Survey

- **Farm Bill**
  - **SEC. 11315. POLLINATOR PROTECTION**
    - Pollinator Protection Act of 2007
    - Enhanced funding for research
  - **APHIS**
    - \$2,250,000 for 2008 – 2012
      - Not appropriated
    - Conduct nationwide honey pest and pathogen surveillance program



# National Survey

- **Pilot Survey (2009-2010)**
  - Hawaii, California and Florida
- **Limited National Survey (2010-2011)**
  - Alabama, California, Florida, (Hawaii), Indiana, Michigan, New York, Pennsylvania, Tennessee, Texas, Washington, South Dakota
- **APHIS funded from the Farm Bill Section 10201**
- **APHIS and ARS collaboration**



# National Survey

- 25 apiaries per state
- 8 hives per apiary
- 3 samples
  - Wet/Alcohol Sample
    - Small hive beetle, Nosema, Varroa, etc
  - Bump/Tropilaelaps sample
  - Live Bee Sample
    - Molecular analysis
    - *Apis cerana*, *Apis mellifera capensis*, Viruses





# National Survey

- HoneyBeeSurvey@aphis.usda.gov
- [http://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/honey\\_bees/survey.shtml](http://www.aphis.usda.gov/plant_health/plant_pest_info/honey_bees/survey.shtml)